



The Insurance Industry & The Climate Change Debate



James Slaughter
Head of Strategy & Capital Management
Liberty Syndicate Management Ltd

Agenda

- Introduction to Reinsurance & the Lloyd's Market
- Industry opinion on the impact of Climate Change
- How the insurance industry can help the debate
 - Financing the increased risk
 - Lobbying government

Personal Background

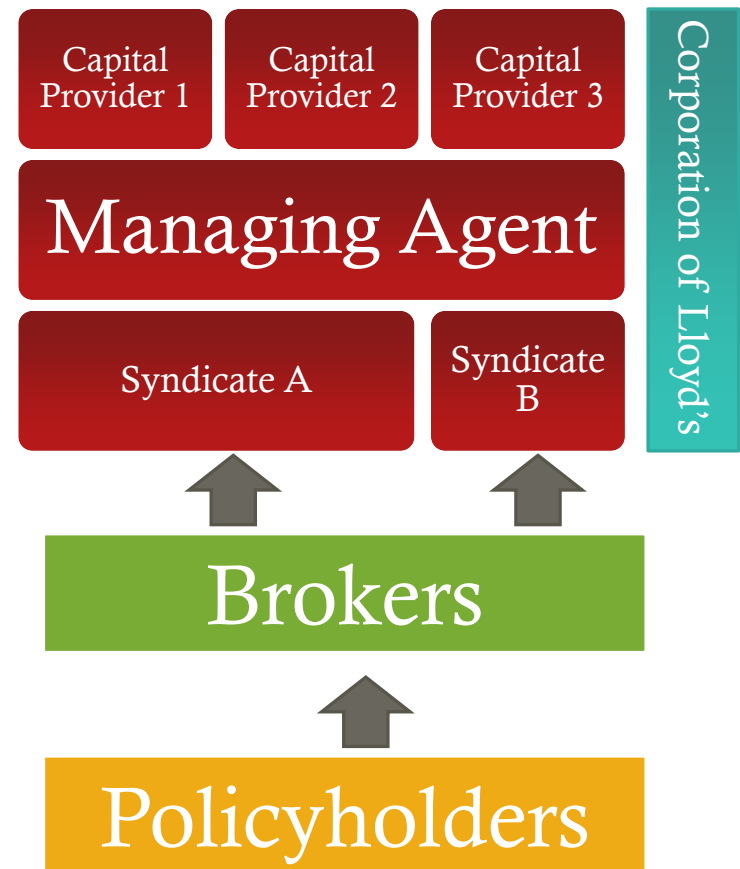
- 5 years at Liberty buying and selling reinsurance, as well as leading the Strategy and Capital Management team
- Previously a senior underwriter for Berkshire Hathaway in Europe
- Fellow of the Chartered Insurance Institute
- MBA Imperial College

The Global Reinsurance Market

- Provides protection against exposure to peak aggregations and perils (e.g. California Earthquake, Florida Windstorm)
- Current market cap. \$400bn
- Rating environment good but trending down
- Major centres in Bermuda, London, Zurich, North America and Europe
- Includes traditional carriers such as Swiss Re, Lloyd's of London and hedge fund markets such as DE Shaw
- Typical products offer protection for events that occur in the 1:10 to 1:200 year Return Period
- Structures include:
 - Excess of Loss
 - Proportional
 - Catastrophe Bond
 - ILW
 - Contingent structures
 - Swaps
- Since Hurricane Katrina there has been a reduction in frequency and severity (although Chile earthquake is a major industry event)

Lloyd's of London

- Founded in 1688 by Edward Lloyd as a coffee shop
- Leading insurance market for large commercial risks
- 2009 £22bn of premium income written by 80 Syndicates
- Over 1/3rd of Lloyd's business is Reinsurance
- Net Profit (pre-tax) £3.868bn
- A+ S&P Rating
- Benefits from “chain of security” through mutualisation



Climate Change Impact 1

1



2



- Probable increase in the frequency of natural catastrophes
 - IPCC noted that Atlantic hurricanes and Pacific cyclones are unlikely to see a rise in frequency
 - Flood (either storm surge or precipitation) and drought will increase
- Combined with demographic changes = severity
 - Population migration to catastrophe exposed areas
 - Growth in asset values and personal wealth
- **Leads to a rapid rise in the requirement for reinsurance capacity to manage uncertainty**

Climate Change Impact 2

- The industry will also need to address the changing risks associated with climate change
 - Alternative power generation (growth in prototypical technologies; unknown risk & accumulation)
 - Legal environment – litigious society, will climate change bring a raft of major suits? Will governments be at risk if they fail to adapt?
- All this will drive new approaches to:
 - Modeling
 - Weather forecasting
 - Product design
 - Risk transfer mechanisms
 - Capital structures
 - Strategic partnerships

How can the industry help? 1

- A track record in risk management (particularly extreme weather)
 - Good grasp of the benefits and limitations of modeling
 - Ability to understand and price the downside
- Lead thinking in emerging risks
 - Lloyd's 360 Project, Lighthill Risk Network
- Support the climate change response
 - Provide products to support alternative energy industry
 - Support changes in global trade (shifting production; transportation; infrastructure development)

How can the industry help? 2

- Work with government agencies to inform the debate
 - On building programs (i.e. not on the flood plain!)
 - Coastal defence systems
 - A 2nd Thames Barrier – what would happen if the centre of London was under 3 foot of water?
- Provide a real alternative to government backed insurance schemes
 - Leads to short-termism in risk financing (e.g. Florida)
 - Uses up scarce public finances (especially in the current economic climate)

Evidence of the Industry Response

- New Products
 - Catastrophe Bonds
 - Agriculture products
 - Weather products
 - Index catastrophe securities
- New markets
 - Opening up the capital markets to insurance products
- Industry Leadership
 - Major reinsurers working on climate technologies
 - Working with forecasting providers to develop better predictive technologies
 - Climate risk explicitly explored in capital setting

The Insurance Industry & The Climate Change Debate

Q&A?